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# THE *AGRICULTURAL* • SITUATION •

JUNE 1941

*A Brief Summary of Economic Conditions*

Issued Monthly by the Bureau of Agricultural Economics, United States Department of Agriculture

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HIGHER FARM COMMODITY LOANS sparked the markets during the past month . . . prices of wheat, corn, cotton, tobacco, and rice rose to new high marks in more than a year. \* \* \* but-tressed also were the prices of livestock, poultry, and dairy products under Food-for-Defense Programs. Prospects for farm income in 1941 were raised above earlier estimates. \* \* \* Total agricultural production may be a little larger this year than last, notwithstanding the smaller 1941 pig crop. Crops and livestock are in good condition, feed for livestock is abundant, producers generally are responding to the expansion program on foods for national defense. \* \* \* Wheat growers have voted for marketing quotas on this year's crop. This means that commodity loans—raised now—will be available to wheat producers. Increased commodity loans on all basic crops, plus conservation and parity payments, have raised per unit returns to growers close to the 1910-14 parity goals established by Congress. \* \* \* Continued maintenance of close-to-parity levels now depends largely on prices farmers must pay for commodities used in production. Costs of production are higher this year than last.

# Commodity Reviews

## DEMAND: Rising

FURTHER improvement in industrial employment and pay rolls and in consumer demand for farm products is expected during the remainder of this year. Industrial production recovered quickly from the relapse brought on by industrial strikes in April and has already reached a new peak. Further stimulation to industrial activity will come from continued expansion in defense expenditures, already around 900 million dollars a month as contrasted with only about 17 percent of this sum a year ago.

Increased employment arising largely from the defense and aid-to-Britain efforts and widespread increases in wage rates have resulted in a substantial rise in consumer buying power. This increase will likely be manifested most in purchases of nondurable goods such as food and clothing, since the production of durable consumer goods is being limited by the needs for national defense. Already, the automobile industry has agreed to produce 20 percent fewer 1942 models than 1941 models.

United States exports of agricultural products have increased slightly in recent months, and an extension of the gains is expected under provisions of the Lease-Lend Act. The Department of Agriculture has been buying large quantities of food products of the kind needed by Great Britain, presumably for export to that country as well as for distribution under various relief and nutrition programs in the United States.

P. H. BOLLINGER.

## FARM LABOR: Supply

Despite widespread reports of farm labor "shortage" there was no evidence in mid-May that farm production schedules had been curtailed. Production of milk was setting new high records, southern truck crops were rolling to market in good volume,

and field crops were being planted in about the same volume as last year.

AMS commented that "in the past, farmers have found it possible, in the face of reductions in the supply of farm labor and increasing wage rates, to cut production costs by working longer hours and by calling upon additional members of their families to help with work that had previously been done with hired help. \* \* \* Apparently, the curtailment in the labor supply (this season) has not made it necessary to withdraw an unusual number of children from school to assist with spring planting."

Crop correspondents indicated that "higher farm wage rates are encouraging increased purchases of farm machinery."

## PRICES: Higher

Prices of farm products rose further during the past month, stimulated by Federal legislation providing for higher commodity loans on basic farm commodities. The index of prices of all products combined was 112 in mid-May, and was probably a little higher later in the month. The index of prices paid by farmers also rose a notch during the month to the highest level since the outbreak of World War II.

Farmers are now getting higher prices for practically all commodities than a year ago; the gain in the average of all products combined since the outbreak of World War II is approximately 25 percent. The increase in prices paid for commodities and services (other than farm labor) used in production has been only 5 percent, but farm wages—an important item of cost—are the highest in more than 10 years.

The ratio of prices received to prices paid is approximately 20 percent higher now than in August 1939—the month immediately preceding the beginning of World War II. But this

ratio is still 10 percent below the 1910-14 average.

### Index Numbers of Prices Received and Paid by Farmers

[1910-14=100]

Year and month	Prices received	Prices paid	Buying power of farm products <sup>1</sup>
1940			
May	98	123	80
June	95	123	77
July	95	122	78
August	96	122	79
September	97	122	80
October	99	122	81
November	99	122	81
December	101	123	82
1941			
January	104	123	85
February	103	123	84
March	103	124	83
April	110	124	89
May	112	125	90

<sup>1</sup> Ratio of prices received to prices paid. <sup>2</sup> Revised

### INCOME: Up

Higher commodity loans on basic commodities plus increased Government purchases of products under the Food-for-Defense Program have raised the prospects for farm cash income above earlier expectations.

Income is rising seasonally now on current production; in addition, farmers have redeemed for sale at higher prices large quantities of 1940 cotton and wheat which had been pledged as collateral on Government loans.

Income figures available to date show that in the first 4 months of 1941 farmers received about 237 million dollars more from the marketing of products than in the like period last year. Income from livestock and livestock products was 300 million dollars more than in 1940, but income from crops was 63 million dollars less. Government payments also were smaller than in the first 4 months of 1940, the decrease totaling 77 million dollars.

Cash farm income is expected during the next few months to continue substantially higher than in the like period of last year. Income from fruits and vegetables probably will be larger, cotton is higher priced this year than last, wheat is higher priced and the new crop started to market earlier this year than last. Producers of livestock and livestock products will probably have the best income in several years.

### Prices of Farm Products

Estimates of average prices received by farmers at local farm markets based on reports to the Agricultural Marketing Service. Average of reports covering the United States weighted according to relative importance of district and States.

Product	5-year average, August 1909-July 1914	May average, 1910-14	May 1940	April 1941	May 1941	Parity price May 1941
Cotton, lb.	cents	12.4	12.7	9.79	10.45	11.68
Corn, bu.	do	64.2	66.2	63.4	62.0	65.9
Wheat, bu.	do	88.4	90.3	80.7	76.0	79.4
Hay, ton.	dollars	11.87	12.28	8.32	8.10	7.98
Peanuts, lb.	cents	4.8	4.9	3.66	3.62	3.65
Potatoes, bu.	do	69.7	69.5	83.5	57.6	53.4
Oats, bu.	do	39.9	41.5	36.6	35.2	34.0
Rice, bu.	do	81.3	(?)	71.0	111.7	115.4
Tobacco: <sup>2</sup>						
Fire-cured, types 21-24, lb.	do	13.6	(?)	6.9	8.4	7.6
Cigar leaf, types 41-45, lb.	do	14.1	(?)	8.0	9.0	6.7
Cigar binder, types 51-55, lb.	do	19.9	(?)	14.0	14.3	13.6
Apples, bu.	dollars	.96	1.27	1.05	1.06	1.01
Beef cattle, cwt.	do	5.21	5.50	7.51	8.60	8.52
Hogs, cwt.	do	7.22	7.23	5.35	8.01	8.19
Chickens, lb.	cents	11.4	11.8	13.6	15.7	16.3
Eggs, doz.	do	21.5	16.6	15.1	19.7	20.1
Butterfat, lb.	do	26.3	24.0	26.9	32.6	34.7
Wool, lb.	do	18.3	17.8	27.6	34.7	36.1
Veal calves, cwt.	dollars	6.75	6.59	8.91	9.84	9.90
Lambs, cwt.	do	5.87	6.46	8.25	9.09	9.05

<sup>1</sup> Revised.

<sup>2</sup> Post-war base.

<sup>3</sup> Prices not available.

<sup>4</sup> Adjusted for seasonality.

The following table shows income for April and totals for the first four months of 1941 with comparisons:

Month and year	Income from marketings	Income from Government payments	Total
	Million dollars	Million dollars	Million dollars
April:			
1941-----	670	39	709
1940-----	562	65	627
1939-----	478	90	568
1938-----	482	60	542
January-April:			
1941-----	2,497	279	2,776
1940-----	2,260	356	2,616
1939-----	2,059	282	2,341
1938-----	2,119	168	2,287

### WHEAT: Harvest

Another winter wheat crop is being harvested—a crop that has been estimated at 698 million bushels, the fifth largest on record. Total supply of wheat for 1941-42—including winter wheat, spring wheat, and the 1941 carry-over—may be 1,295 million bushels. This compares with 1,099 million bushels for 1940-41. The total supply this year will be the largest on record.

Growers have voted in favor of marketing quotas on this year's crop, thereby assuring continuance of Government commodity loans. These loans are available to all producers—to cooperators in the allotment program at full loan rates, and to non-cooperators at 60 percent of the loan rates on their excess wheat. Marketing or feeding of wheat from acreages in excess of the allotments is subject to a penalty.

A Government analysis of the loan program during the marketing year now drawing to a close shows that during most of the year wheat prices were held at an average of about 25 cents per bushel above the level which normally would have prevailed under competitive supply and demand conditions. Legislation increasing the loan rate raised wheat prices in May to the highest level in a year. Through mid-May producers had redeemed

approximately 50 million bushels of wheat pledged as collateral for loans on the 1940 crop.

### COTTON: Prices Up

Cotton prices, up sharply in response to Federal legislation providing for higher loans to growers, have been the best since the summer of 1937. Prices in spot-cotton markets averaged close to 13 cents in early June, as contrasted with less than 10 cents at the same time last year. The higher prices have resulted in the redemption by growers of about 2 million bales of cotton pledged as collateral on 1940 cotton loans.

Domestic cotton-mill consumption continues to make new high marks, but exports of cotton have shrunk practically to the vanishing point. No encouragement is offered by the turn of events abroad; even in Great Britain, the production of cotton goods is being restricted to war needs and a minimum of civilian requirements. Consumption in the United States will set a new high record this year, and there is a backlog of unfilled orders which will keep spindles going at a heavy rate well into next season.

United States exports of raw cotton totaled little more than 900 thousand bales during the first 9 months of the current season. Since exports may be even smaller next season, producers will be dependent almost entirely upon domestic consumption and Government loans plus conservation and parity payments.

### CATTLE: Increase

An increase of about 5 percent is expected in total number of cattle and calves marketed for slaughter this year compared with last. Much of the increase will be in grain-fed cattle, but marketings of cows and heifers also may be a little larger this year than last. The extent to which total slaughter will exceed that of 1940 will depend largely upon producers' plans for holding back breeding stock.

Despite the prospective increase in cattle marketings this year, prices are expected to average higher than in 1940, as consumer demand for meats continues to improve. Prices of the better grades of slaughter cattle usually advance in late summer and fall, but the rise may be smaller this year than last on account of prospective large increase in marketings of fed cattle. Prices of the lower grades of slaughter cattle and of stocker and feeder cattle may weaken seasonally or hold about steady this summer and fall.

Government analysts look for a relatively high level of domestic demand for meats during the next year or two. They suggest a program of increased cattle marketings during this period. Should farmers continue to build up herds during the next 3 or 4 years, marketings of cattle and calves for slaughter at the end of that time will be exceptionally large and consumer demand may be less favorable than it is now.

### HOGS: Higher

The pigs produced last fall are being marketed now, but the output was 13 percent smaller than in the fall of 1939, and marketings of hogs will be smaller this summer than last. Diminishing the total marketings also is the likelihood that shipments of packing sows will be substantially smaller this summer than last, since a marked increase is expected in the number of sows bred for farrow next fall.

The smaller marketings of hogs plus continued improvement in consumer demand and increased Government buying in the food-for-defense program spell higher hog prices. Hogs stood in favorable ratio to corn in mid-May, and it was considered as more than likely that this favorable relationship would be maintained during the remainder of the 1941 breeding season. This would point to a substantially larger pig crop in the spring of 1942 than in the spring of 1941.

Government purchases of pork and lard have been an important factor in

maintaining prices this season above the levels of the corresponding period a year earlier. Analysts noted that the rise in hog prices since March was more pronounced on heavy than on light hogs. Government purchases have been of the heavier weight cuts of pork products. Prices of 270-300-pound butcher hogs at Chicago were about 85 cents higher in early May than in March, whereas 180-200-pound hogs were only 60 cents higher.

### LAMBS: Good Season

The early lamb season has been reported as one of the best ever experienced by producers. Early lambs have made good growth, and heavy marketings of these lambs and of yearlings from Texas are expected this month and next. Prices continue above those of a year ago, and above parity. The spread between market prices of shorn and wooled lambs was wider this spring than last, reflecting the higher level of wool prices.

Continued improvement in consumer demand for lamb and other meats is expected this summer, a factor that will offset at least in part the heavy volume of marketings. Prices probably will not decline as sharply this month and next as they did at the corresponding time last year. Moreover, the summer decline last year was much greater than the average for that time of year.

Farmers have been getting highest prices for wool in more than 10 years. Continuing support to domestic wool prices is seen in the prospect that mill consumption this year will be the largest on record to fill Army orders and civilian needs. Imports of wool are expected to decline this summer.

### FATS, OILS: Up

A substantially higher average of prices of most fats and oils is forecast for this year compared with last. Strengthening factors include the increased buying power of consumers, a high level of building activity, and the

likelihood that imports of vegetable oilseeds and oils will be smaller during the remainder of this year as contrasted with 1940. (Supplies of most kinds of imported fats and oils are abundant in surplus-producing countries, but ocean shipping space has become increasingly scarce.)

Oilseeds prices also should average higher during the 1941-42 marketing season, even if the production of oilseeds is increased this year. Estimates on 1941 acreage of cotton will be available in July. Producers of other crops had reported they intended to plant 2 percent less flaxseed and 7 percent less soybeans this year than last. Intended acreage of peanuts was about the same this year as last.

The United States has enough flaxseed on hand to meet crushing requirements until the new domestic crop becomes available. Nevertheless, some flaxseed probably will be imported during the remainder of this year to meet the needs of eastern mills and part of the crushing requirements in the first half of 1942. United States imports during the first quarter of 1941 totaled nearly 4 million bushels, but it is expected that imports will not be maintained at this rate during coming months.

### DAIRY: Records

Milk production reaches its annual peak this month—probably a higher peak than ever before. And after the turn of midyear when production declines it is expected that the flow will be larger than during the same period of 1940. More cows are on farms this year than last, feed is abundant, consumer demand is good, and price ratios are favorable to increased production of milk and manufactured dairy products.

Instead of the normal downward trend in fluid milk prices for May, the trend was toward higher prices for most of the markets reporting changes this year. An increasing demand for manufactured dairy products under the national defense program was

apparently taking the normal increase in fluid milk supplies at higher prices. A few markets, however, reported seasonally lower prices.

A good storage demand for dairy products has been forecast for this season, since 1940-41 was profitable to cold storage operators and consumer buying power is expected to continue at a high level this year and next. Cold storage stocks of butter on May 1 were almost double those of a year earlier, and stocks of cheese were about 40 percent larger than on that date last year. Wholesale prices of butter and cheese during the month were the highest for that period since 1929.

### DRY BEANS: Increase

A program aimed at a 35-percent expansion in acreage planted this season to dry edible beans of the white varieties over the 1940 acreage has been announced by Secretary Wickard. Such an increase will be needed, it was stated, to assure adequate supplies and reserves to meet domestic commercial, school lunch, relief, and export requirements, as well as for shipments under the Lend-Lease Act and by the American Red Cross.

The Department of Agriculture intends to support the market for Pea and Medium White, Great Northern, and Small White beans. Purchases of new-crop beans will be made, insofar as practicable, from farmers cooperating in the AAA program. Operations will be directed at supporting the market on an Eastern seaboard basis at an average price level of approximately \$5 a hundredweight until about May 1, 1942.

Some variation in prices will be necessary to reflect differences in transportation rates from point of purchase which range from 20 cents to \$1 per hundredweight and to allow for differences in grade and supply and price situations which may develop. Continued purchases of both white and colored varieties of dry edible beans will be made as needed.

Growers who take part in this program and increase acreage of the desired varieties of white beans will not incur any deductions from their AAA payments because of so doing.

### TRUCK CROPS: Higher

Harvesting of truck crops is moving rapidly north, and a good volume of output is expected for summer markets. Total marketings may be a little smaller than in 1940, but prices are higher since consumer buying power is unusually good and is expected to improve more during the remainder of the year. Larger acreages of truck crops for processing have been planted this year than last. Producers of vegetables usually get more than a third of their annual income during July, August, and September; this year the total should be larger than in 1940.

Production of new potatoes in the second section of early States has been indicated at 21 million bushels, or approximately 16 percent more than last year's output. Marketings of potatoes are increasing, but prices seem to be holding up well in response to a good consumer demand. Condition of the crop was reported last month as being above average in all States except Florida, North Carolina, and California.

### FRUITS: Good Crops

Fairly large crops of nearly all important fruits are in prospect for this year. Production of peaches in the 10 early Southern States may be the largest since 1931, "good-sized" crops of apples are expected in most commercial sections of the country, a somewhat larger crop of dried prunes this year than last is expected in the Pacific Coast States, California apricots also are expected to be a much larger crop this year.

An average crop of Bartlett pears is expected in the Pacific Coast States

but production of late varieties probably will be relatively light . . . most varieties of California grapes are expected to produce crops of at least average size . . . indications in mid-May were that pears would be a good crop in eastern producing areas. The condition of citrus trees and bloom was reported as "generally favorable" in most areas as of May 1.

Farmers' cash income from fruits usually rises sharply in June. This year the markets should be especially good in view of the increased buying power of consumers and the various purchasing and diversion programs of the Federal Government.

### POULTRY, EGGS: Higher

Production of eggs is declining seasonally now, but the total output is about the same as at this time last year and prices are higher in response to unusually good consumer demand. Meanwhile, there has been a marked increase in hatchings of chicks and there will likely be many more layers on farms next fall than last. This points to a sizable increase in production of eggs later in the year when consumer buying power may be even better than it is now.

Laying flocks have been smaller this spring than at corresponding dates last year, but the rate of lay has been unusually good. There were 10 percent more young chickens on farms this May 1 than last; indications in midmonth were that there was a high record hatch in May, and that there would be a large late hatch this year. Much of this is in response to the Government request that production of poultry and eggs be increased this year in connection with the Food-for-Defense Program.

Chickens are selling higher than at this time last year, a situation that is expected to continue even though supplies of poultry meat will be larger than during the last half of 1940.

FRANK GEORGE.

# Commodity Loans in 1941

PLANS for 1941 commodity loan programs are being formulated by the Department of Agriculture. Congress has authorized loans on wheat, cotton, corn, tobacco, and rice to be made by the Commodity Credit Corporation at 85 percent of parity, this rate to apply only when marketing quotas have not been disapproved by producers.

**Wheat:** To wheat producers 85 percent of parity loans will mean an average loan of about 98 cents a bushel on the farm as compared with the 1940 loan of 64 cents at the farm. Allowances for handling and transportation costs will bring the loan values for basic grades of wheat at major terminals, if delivered there, to the following figures:

No. 2 Hard Winter:	Dollars per bushel
At Kansas City.....	1.10
At Omaha.....	1.09½
At Chicago.....	1.15
At Galveston.....	1.17
No. 2 Red Winter:	
At Chicago.....	1.15
At St. Louis.....	1.15
No. 1 Dark Northern Spring:	
At Minneapolis.....	1.15
No. 1 Soft White:	
At Portland.....	1.05

Since storage facilities in terminals and subterminals are expected to be burdened by the carry-over from the 1940 crop plus the large crop soon to come to market, the Commodity Credit Corporation is assisting farmers in the storage of loan wheat on farms. Prepayment of the usual storage allowance of 7 cents per bushel for farm storage of wheat is to be made when the producer provides new or additional storage space. Another change in the 1941 loan program sets April 30 as the maturity date for all loans, farm-stored as well as warehouse-stored.

**Corn:** Loans at 85 percent of parity would mean an average loan rate of 70 cents per bushel at present parity levels although the rate may vary by counties. For the 1940 crop eligible producers in the commercial corn area received loans of 61 cents per bushel regardless of location. The Department of Agriculture has announced that there will be no marketing quotas on the 1941 corn crop.

**Cotton:** At 85 percent of parity the average cotton loan will approximate 13.7 cents per pound gross weight based upon present parity. Since cotton prices have advanced on the prospect of higher loans, large quantities of cotton pledged as security for loans have been redeemed for sale at the higher prices. These redemptions of cotton have swelled "free" stocks and consequently increased the quantity of the 1941 crop that is likely to be placed under loan. It is possible that 1941 cotton pledged for loans will double the 1940 volume. Much of this cotton, of course, may be required for consumption before the end of the season and be redeemed, but a movement into the loan exceeding that in 1937 is possible.

**Tobacco:** Growers of flue-cured and burley tobaccos probably will receive 2 to 3 cents more a pound for their 1941 tobacco than for their 1940 crop, since the loan and purchase programs of the Commodity Credit Corporation will be geared to 85 percent of parity. For the 1940 crop growers of flue-cured and burley tobaccos received returns of about 72 percent of the revised parity standard. It is anticipated that loan and purchase arrangements with export tobacco companies similar to those of the past two seasons will be utilized to move the flue-cured crop.

**Rice:** To rice producers loans at 85 percent of parity means a floor of about 90 cents a bushel as compared with a 1940 season average price of about 70 cents a bushel, and a price of about \$1.15 a bushel on May 15, 1941.

# Farmers Repay Crop Loans

**F**ARMERS have redeemed substantial quantities of 1940 crops pledged to secure Commodity Credit Corporation loans. During March, April, and the first half of May they redeemed more than 1½ million bales of cotton and approximately 50 million bushels of wheat. These redemptions to an important degree resulted from the prospect for higher loans on 1941 crops.

Replacing export outlets now closed to our products, the loan and purchase programs of the Department of Agriculture have absorbed large quantities of surplus commodities that otherwise would have demoralized the domestic market. As a substitute for lost export markets, the loan programs have been needed most for cotton, flue-cured tobacco, raisins, dried prunes, and naval stores, since—on the average—two-fifths of these crops had been exported during recent years.

During the crop marketing season now coming to a close about two-thirds of the raisin production, one-half of the dried prunes, one-third of the flue-cured tobacco, and one-fourth of the cotton crop were placed under loan. One-third of the wheat production was pledged since supplies were much in excess of domestic requirements. Wheat in recent years has participated less in foreign markets than have other export crops.

**W**HAT loans during the 1940-41 season were made on 278 million bushels as compared with 168 million bushels of the 1939 crop. It is estimated that approximately 180 million bushels of this wheat—the security for unpaid loans—will be turned over to the Corporation. It is probable that approximately 25 million bushels of farm-stored wheat will be rescaled. Although almost 50 million bushels of the wheat placed under loan was redeemed (and some further redemptions of farm-stored wheat is anticipated), the results of the 1940 program

differ sharply from last year's experience. Then, there was almost complete liquidation of loans aside from loans extended on 10 million bushels of farm-stored wheat. Since the total wheat carry-over will be only about 120 million bushels larger than last year's, the quantity of Government stocks indicates that holdings in private hands will be substantially smaller than a year ago.

(Wheat which is turned over to the Corporation is placed in a pool for sale at a later date. Any profits from such sales are to be prorated among producers participating in the pool.)

**T**HE importance of cotton loans in supporting prices at the time of active marketing by producers is evidenced by a comparison of 1940 loans on 3.2 million bales with the average exports of 5 million bales during the 1934-38 period, and the prospective 1940-41 exports of 1 million bales. In Texas, where export markets are a major outlet, more than 1.6 million bales, or one-half of the cotton crop in that State, moved into loan; in California, also normally exporting a large proportion of its cotton, 385 thousand bales or three-fourths of the crop was pledged.

With the rise in cotton prices beginning in March, liquidation of loans became profitable to cotton growers. By mid-May redemptions had been reported on a total of more than 1.7 million bales of 1940 cotton; furthermore 225 thousand bales of 1938 loan cotton had been redeemed since March. In the eastern and middle areas of the Cotton Belt, where less than 15 percent of the 1940 crop was placed under loan, most of the pledged cotton has already been released. In Texas over 800 thousand bales had been redeemed by early May. Repayments of loans in California, however, have been at a much slower pace.

## Summary of Cotton Loans

	Loans made	Quantity under loan May 17, 1941
1940-41 crop	Bales 3,158,000	Bales 1,437,000
1939-40 crop	30,000	15,000
1938-39 crop	4,482,000	1,749,000
Previous crops	12,254,000	16,126,000
Total	19,924,000	9,327,000

<sup>1</sup> Owned by Commodity Credit Corporation.

CORN loans by mid-May had been made on only 100 million bushels as compared with 300 million bushels a year ago. The quantities likely to come under loan are not so large as last year's because of the smaller 1940 corn harvest, the longer storage period required of producers, and some increase in demand for feeding purposes. Reserve supplies of corn on farms have been assured by the resealing program under which approximately 200 million bushels of 1938 and 1939 corn have been stored for one- and two-year periods. About 170 million bushels of 1938 and 1939 loan corn, not redeemed or resealed, were delivered to the Corporation in the latter half of 1940.

On April 30 the Corporation owned 125 million bushels of corn stored in steel bins, 34 million bushels stored in country elevators, and 63 million bushels in terminal and subterminal elevators. The corn stored at country points is available for sale at 65 cents a bushel, or at the local market price, whichever is higher. The corn located at terminals and subterminals is available for sale at somewhat higher prices. From February through mid-May, 25 million bushels of corn were sold and sales are continuing at a substantial rate. With more than 400 million bushels of old corn available for sale or redemption, and 100 million under 1940 loans, the Ever-Normal Granary Program now provides, at reasonable prices, the needed reserve feed supplies for the planned expansion in output of pork and other livestock products.

TOBACCO programs operated by the Corporation this season included loans and purchases for flue-cured, burley, and dark tobaccos. Almost 170 million pounds of flue-cured tobacco were bought for the account of the Corporation. The export tobacco companies, who acted as buying agents, have options to purchase this tobacco from the Corporation at cost plus accrued charges. Cooperative-marketing associations received loans on burley and dark tobacco, and tobacco export companies received loans on 35 million pounds of flue-cured tobacco and several million pounds of dark tobacco.

Plans are under way to transfer some of the 1939 flue-cured tobacco held by the Corporation to the British Government under the Lend-Lease Act. The amount to be taken may be determined in large part by the shipping space available for this type of cargo.

LOANS and purchases on 1940 crops through April 30 totaled 483 million dollars, as compared with 340 million dollars on 1939 crops. Advances on the basic crops, cotton, corn, wheat, and tobacco, accounted for 457 million dollars of the 1940 total. Besides these major programs, loans were made available to producers of

### Summary of Loan and Purchase Programs on 1940 Crops (through April 30, 1941)

	Quantities pledged or purchased	Face amount of loan or purchase
	<i>Thousands of units</i>	<i>Millions of dollars</i>
Cotton, bales	3,158	152.1
Corn, bushels	98,322	59.9
Wheat, bushels	278,353	200.8
Tobacco, pounds	235,612	44.2
Prunes, tons	89	5.3
Raisins, tons	109	5.1
Turpentine and resin:		
Turpentine, gallons	2,998	
Rosin, barrels	553	
Other crops		6.7
Total		483.0

barley, rye and grain sorghums and to cooperative associations marketing butter, peanuts, prunes, raisins, and gum naval stores. Loans to co-operative associations on 1940 crops amounted to 24 million dollars. On April 30, 1941, commodity loans held by the Corporation totaled 353 million dollars, and private lending agencies held an additional 226 million dollars subject to purchase by the Corporation. Some of these loans were on crops produced prior to 1940.

In addition to these loans, the Corporation on April 30, 1941, owned more than 6 million bales of cotton, 93 thousand tons of rubber received in the cotton-rubber barter with Great Britain, and 220 million bushels of corn. Furthermore, during May, the Commodity Credit Corporation was completing the pooling of some 180 million bushels of wheat securing unpaid 1940 loans.

C. C. FARRINGTON,  
*Commodity Credit Corporation.*

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## Income of Typical Cotton Farms

DURING recent years many general and very sweeping statements have been made concerning the incomes of cotton farmers in the South. That such statements are likely to be misleading especially when applied to any particular section is evident from indices of net farm returns of cotton farmers in three separate areas of the South. Such statements are particularly misleading when the relative incomes are compared with the base period 1910-14. During the past 8 years, the index of net farm income of typical cotton farmers on family-sized farms in the Mississippi Delta has been considerably above 100 percent of the 1910-14 income, while that of the cotton farmers in the Black Waxy Prairie of Texas has been well below 100 percent. The index for typical 2-mule cotton farms in Georgia (largely representative of cotton in the lower Piedmont area) has barely reached 100 percent in 3 of the last 8 years. These wide differences among areas suggest that cotton farmers' problems have distinct area implications and are therefore not likely to be solved with any single formula.

The index of net farm income summarizes changes in farm organization such as size of farm; use of land; production of crops, livestock, and livestock products; and mechanization and other technological developments, to-

gether with shifts in prices. Net farm income as used here is the amount which the farm operator has during the year to compensate himself and unpaid members of his family for services rendered on the farm. Only interest actually paid on farm obligations is considered as expense. Crops on which loans were obtained but not redeemed were considered sold. The farms are considered as owner-operated, and the income is computed on a calendar-year basis.

EACH of the organizations is typical of cotton farms in the indicated section of the South, but each organization is different and the shifts made by the operators to meet changing economic conditions are significantly different.

The two-mule cotton farms in Georgia are typical of a large group of farms in the Old South, an area in which cotton farming has been established for some time. Cotton farming became prominent in the other areas considerably later, particularly in the Delta of Mississippi, and was well established in each of the areas by 1910. The Mississippi Delta is a comparatively new farming area, however, and considerable land was still being reclaimed and farm organizations were undergoing considerable change long after 1910.

Typical family-operated farms of the Delta in 1910 produced little but the one crop—cotton. Under this one-crop system it was necessary to ship in feed crops for the livestock—mostly work animals. This importing continued until after the Agricultural Adjustment Program was well under way in the area.

**T**HE trend in the index of farm income has usually been more favorable to Delta cotton farmers. But excessive moisture conditions, with which boll weevil infestation is associated, are frequent in the Delta area. These factors, combined with a short corn crop in 1920, gave the Delta a lower index of farm income than the other areas in 1916 and 1920. The index of farm income was low for all areas in 1931 but was comparatively lower for the farmers in the Delta. In that year, Delta farmers had high yields of cotton which had to be harvested at costs which had fallen far less than had the price of cotton.

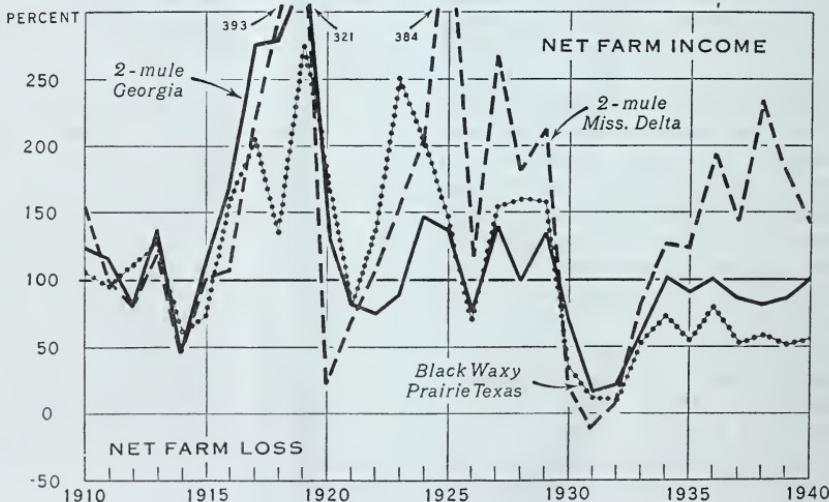
The acreage of cotton has been reduced drastically in each area under the adjustment program. Striking changes in farm organization have been made in each area. Each group

of farmers has increased acreages of corn, hay, and other feed crops, and each group has increased its livestock program. Georgia farmers have increased their livestock enterprises to the extent that feed crops are still utilized on the farm, whereas farmers in the Black Waxy area are selling more feed crops than formerly. Delta farmers are now producing enough whereas formerly, though their livestock programs were small, they were purchasing feeds. In 1938 this area had a slight excess of feeds, the only year in which this has happened.

**T**HESSE shifts and changes are reflected in the indices of net farm income. The index of net farm income for Delta farmers has been comparatively high since 1933, mostly because the farmers have been able to increase their production substantially without any material increase in costs. They are now producing 45 percent more cotton on 28 percent less acreage and are spending slightly less for fertilizer than during 1928-32. These farmers have almost doubled their cotton yields since the adjustment program started. Less than 5 percent of their total expenditures is for fertilizer.

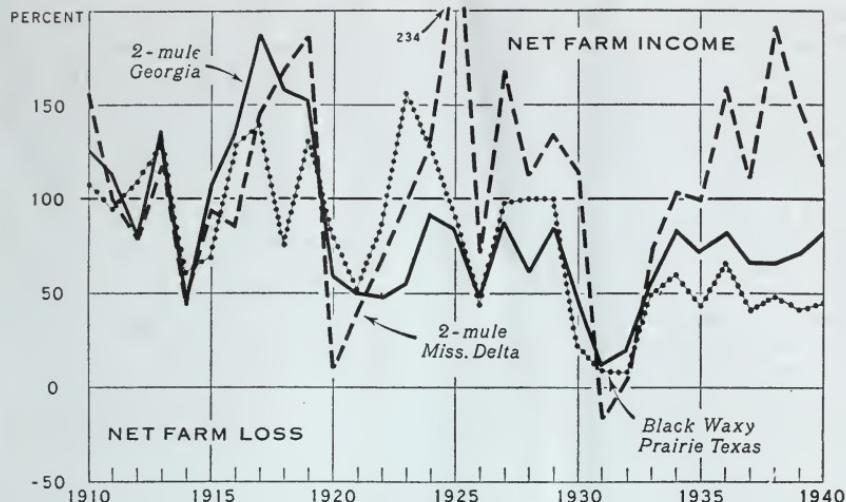
#### INDICES OF NET FARM INCOME OF TYPICAL COTTON FARMS, 1910-40

(1910-14=100)



INDICES OF PURCHASING POWER OF NET FARM INCOME  
OF TYPICAL COTTON FARMS, 1910-40

(1910-14=100)



The index of farm income of Georgia farmers has generally been less favorable than for Delta farmers. This has been true particularly since 1933. These farmers are now producing the same quantity of cotton as they did during the period 1928-32, but they have reduced the acreage of cotton by 24 percent<sup>1</sup> and are spending 17 percent less for fertilizer than in the period 1928-32. Even so, more than 32 percent of their total expenditures now is for fertilizer. In contrast, Black Waxy farmers have had the lowest index of net farm income in recent years. These farmers are now producing 20 percent less cotton on a third less land than during the period 1928-32. Farmers in the Black Waxy have never used commercial fertilizers extensively in cotton production.

The typical Black Waxy cotton farm in terms of acres cultivated is almost three times the size of the Delta farm and more than double the size of the Georgia farm. Since the early 1930's farmers in the Black Waxy area have mechanized their farms considerably. Approximately 30 percent of the total expenditures on these farms in 1937-39 was for machinery operation and replacement in contrast to an average of

12 percent from 1910 to 1932. Little mechanization has taken place on the Georgia or Delta farms.

**Organization of Typical Cotton Farms.  
1937-39**

Item	Type of farm		
	2-mule, Georgia	2-mule, Mississ. Delta	Black Waxy Prairie, Texas
Acres in farm.....	81.9	40.9	101
Acres cultivated.....	39.2	30.2	87
Percentage of farm cul- tivated.....	47.9	73.8	86
Acres cotton.....	11.6	13.8	37.6
Yield of cotton, pounds lint.....	244	426	183
Acres corn.....	16.6	9.7	17.0
Acres other grains.....	10.3	2.8	8.1
Acres hay.....	1 (5.0)	2.3	9.4
Acres pasture.....	8.6	5.0	12.0
Workstock, head.....	2.0	2.0	3.7
Cattle, head.....	2.6	1.9	3.5
Hogs, head.....	4.0	5.0	5.1
Hens, number.....	40.0	45.0	60.0
Proportion of gross in- come from various sources			
Percent	Percent	Percent	
Cotton and cottonseed.....	59	79	64
Other crops.....	5	0	4
Livestock.....	6	3	4
Livestock products.....	13	5	11
AAA.....	17	13	17
Total.....	100	100	100

<sup>1</sup> Double-cropped.

THE question arises as to what these incomes mean in terms of purchasing power to the farmer. Will the income this year buy as much of goods and services for family living as the income in 1910-14? (Expenditures for farm operations have already been accounted for in farm expenditures each year.) Prices farmers pay for commodities and services in family living are higher today than in 1910-14. Have farm incomes risen to the same extent? Indices of the purchasing power of net farm income are shown in the chart on page 13. The index of net farm income for each of the typical farm organizations has been adjusted by the index of prices farmers pay for commodities used in

family living—both indices based on 1910-14=100.

The purchasing power of net farm income for typical cotton farmers in Georgia hasn't reached 100 since 1919. The purchasing power of cotton farmers in the Black Waxy Prairie of Texas varied about the 100 level until about 1925. Since then, it has been below 70 in all but 3 years—1927, 1928, and 1929. Except for the depression and 1920—a year in which weevil damage was heavy—the index of purchasing power for Delta cotton farmers has generally been above 100. Since 1933 the purchasing power of these Delta farmers has averaged about 135.

WYLIE D. GOODSELL  
WILLIAM D. BLACHLY.

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## Water Facilities Program Speeding Up

AFTER getting off to a relatively slow start in the fall of 1937 and the spring of 1938, the Department's Water Facilities Program is beginning to gather momentum. It is entirely possible that during 1941 more farmers and ranchers will take advantage of the assistance offered under the program than in all previous years of its operation.

Water facilities—especially small water facilities such as stock tanks, wells, windmills, water diversion systems, and small irrigation systems—are sorely needed in arid and semiarid sections of the West. Farmers have been handicapped in obtaining them because in a great many instances they lacked either the technical knowledge necessary to proper water development or the funds with which to finance the facilities. Often they lacked both technical knowledge and funds.

FOLLOWING the droughts of the mid-30's, the report of the Great Plains Committee, and passage of the Water Facilities Act, the present

Water Facilities Program was undertaken by the Department of Agriculture. Congress has annually appropriated \$500,000 for administration of the program and the Farm Security Administration has made available rural rehabilitation funds to give further strength to the effort for water facilities development.

As everyone knows, water development in the West cannot be undertaken headlong. It is a complex, often delicate, business. So, in the early days, progress under the program was slow. Now, however, an increasing number of dry-land farmers are taking advantage of Government assistance in the development of water facilities on their lands. Latest reports show that more than 1,600 farm families will benefit from installations planned during the 8 months following July 1, 1940. This compares with about 2,400 families served by facilities planned during the previous two years.

UNDER the arrangements for administering the Water Facilities Act, the Department of Agriculture

utilizes three of its agencies which are particularly equipped to contribute to an effective service program. The Bureau of Agricultural Economics takes leadership in developing the broad plans for areas in which operations may be conducted. Once an area is approved for operations, farmers may apply either to the Farm Security Administration or to the Soil Conservation Service for the construction of ponds, wells, tanks, dams, or other water facilities. They may apply for single structures to serve individual farms, or they may apply in a group for structures or systems to be used by a number of neighboring farms or an entire community.

Generally, the Farm Security Administration lends the money for the construction of the facilities and the Soil Conservation Service plans the systems and designs the structural work. The farmers agree to pay back all they can of the cost of the facility, the principal and the term of the loan

#### **Present Status of the Water Facilities Program by States:**

	Facilities	Acres under conservation farm plans	Families benefited	Total direct cost <sup>1</sup>
Arizona.....	56	21,476	31	\$47,219
California.....	186	17,845	82	130,416
Colorado.....	114	187,712	210	148,544
Idaho.....	158	59,776	441	272,719
Kansas.....	575	154,194	220	111,333
Montana.....	31	55,296	25	33,350
Nebraska.....	163	131,384	93	98,606
Nevada.....	11	1,362	6	7,045
New Mexico.....	374	159,306	625	205,723
North Dakota.....	68	17,207	30	14,762
Oklahoma.....	790	120,964	295	166,333
Oregon.....	69	18,448	155	105,114
South Dakota.....	211	280,926	91	27,468
Texas.....	2,761	664,102	920	368,516
Utah.....	77	26,075	506	173,154
Washington.....	93	11,566	48	58,194
Wyoming.....	299	312,792	251	127,554
Total.....	6,036	2,240,431	4,029	2,096,050

<sup>1</sup> Includes farmers' contributions, Federal grants and loans to be repaid by farmers.

being scaled according to the beneficiaries' ability to pay. They also agree to follow conservation farm plans and farm and home-management plans to be worked out with these agencies.

At present the Department has approved 148 areas, embracing 156,433,-960 acres of land, for operations under this program.

**T**HE purpose of these water facilities is not reclamation—bringing new land into cultivation. Instead, they are intended to furnish ample and dependable supplies of water, at locations where they can be advantageously used, to farmers who suffer from insufficient or uncertain water supplies. The program provides for the improvement and rehabilitation of old systems and structures as well as for building new ones. Stock watering facilities built or improved to date include ponds, wells, power pumps, windmill pumps, springs, and tanks. Irrigation works for serving 123,543 acres, include dams, wells, pumps, and distribution systems. Several hundred water spreading systems have been installed, and a number of underground reservoir recharging systems are under way.

It is estimated that the total direct cost of the 6,036 facilities planned to date will be \$2,096,050. Of this total cost, the direct and immediate contribution of farmers in terms of labor, equipment, supplies, and so on represents approximately 27.5 percent. About 12.6 percent of the cost will be absorbed by the Government. The remainder, 59.9 percent, is financed by Government loan, to be repaid by the farmer at a low rate of interest over an extended period of time.

**GEORGE PHILLIPS,**  
*Chairman, Water Facilities Board.*

# Farm Products: Producer to Consumer

## III Transportation

COSTS of transportation are an important part of total marketing costs. A recent estimate shows that the charges for transporting farm food products during 1940 totaled 800 million dollars. This amounts to 9 percent of the total costs of marketing these commodities. While this figure may not seem large on the average, for some products the ratio is much higher. Certain products, especially some fruits and vegetables, are shipped long distances; consequently, the hauling charges are relatively substantial. Watermelons are an extreme case—in New York in July 1936, transportation, including city cartage, took 59 cents of the consumer's retail dollar.

In spite of the increasing importance of other modes of transportation, the railroads still probably handle the predominant portion of the intercity movement of farm products. Consequently, the relatively high and increasing level of rail rates has been of major concern to farmers, particularly those located far from their markets. In addition to their opposition to further increases in rates on agricultural commodities, farmers have renewed their demand for a rationalization of the rate structure with a view to distributing more justly the cost of railroad transportation service among its users.

Farmers are also pressing for a more fundamental treatment of the transportation situation. They are insisting upon the elimination of costly and wasteful practices, the scaling down of excessive capitalization and fixed charges and, in general, the introduction of greater efficiency and economy in railroad management. The attainment of greater efficiency by these methods will enable the carriers to reduce the level of rates without sacrificing necessary transportation service.

PROBABLY the most fruitful attempt of farmers to obtain lower priced and more flexible transportation services has been the utilization of agencies of transport other than railways. This method became of material importance after 1920 with the revival of water carriage and especially the development of highway motor transport.

The principal service advantages of using trucks are that they are better adapted to handling small shipments; they can pick up commodities directly on the farm; they can be started on the trip at almost any time; they are more flexible since they need no special right-of-way; they are usually faster than railroads for the short hauls; and they often involve less handling of the products and, consequently, less likelihood of damage on this score. These advantages in service are apparently coupled in many cases with advantages in costs.

Although accurate comprehensive data on the respective costs of hauling a representative group of farm products under comparable circumstances by motor truck and by railroad are not available, it is generally conceded that shipment by truck costs less than by rail for short distances.

FARMERS have diverted a large portion of their traffic to motor and water carriers. About a million motor trucks are now operated by farmers who have discovered the advantages of using this flexible means of transport under their own control. In addition, much agricultural traffic now goes to market by means of common and contract motor carriers, as well as by trucks owned by dealers in farm products, although it is impossible to estimate at this time the proportion of the total made up by such traffic.

It is well known, however, that the

railroads have lost to motortrucks significant portions of the traffic in fat livestock—especially hogs, cattle and calves—as well as in cotton, most fruits and vegetables, milk, butter, poultry and eggs, baled hay and straw, sugar beets, and other farm products. This ability to shift traffic to other agencies of transport, especially to motortrucks, has made it possible for farmers not only to reduce their transport costs and to obtain improved services for the traffic actually shifted, but also to stimulate the rail carriers to make some adjustments in rates and improvement in services for traffic remaining on the rails.

THE post-war rise of motor and water transportation was soon followed by demands that all such for-hire carriers be regulated in the same way as railways, particularly with respect to minimum rates and entry into service. The proponents of such regulation stressed the argument that unregulated competition was destructive and that fair and equal regulation of all agencies of transportation was needed in order to preserve the inherent advantages of each. These demands were to a large extent successful and resulted in the passage of the Motor Carrier Act, 1935, and the Transportation Act of 1940, the latter providing for the regulation of domestic common and contract water carriers.

These laws reflect a drastic departure from the public policy which had prevailed, at least until 1920 for railroads, and, until more recently, for motor and water carriers. The basic proposals of regulation as originally embodied in the Granger legislation of the 1870's and the Act to Regulate Commerce in 1887 were to protect the public against exorbitant rates, unjust discrimination and undue preferences. With respect to railways the traditional policy was greatly changed by the passage of the Transportation Act of 1920 in which the public undertook for the first time to assume considerable responsibility for the financial well-being of the carriers.

This attitude explains the endeavors made to restrict competition among railways. Similar public policies were adopted with respect to motor carrier competition in 1935 and to water carrier competition in 1940.

SOME farmers have questioned the advisability of uniform regulation of all for-hire forms of transportation and of applying to their operations such restrictive devices as minimum rate control and certificates and permits, since this would prevent competition and would perpetuate the high level of rates. It was perhaps the opposition of farmers that induced Congress to insert in the Motor Carrier Act several exemptions of special interest to agriculture. One of the important operations thus exempt from all portions of the law, except those relating to safety, relates to vehicles hauling for hire only unmanufactured agricultural commodities, livestock, and fish.

The Interstate Commerce Commission recognized that the policy reflected in this exception was "in accord with the general policy of the Government to favor and promote the interests of agriculture. The problem confronting Congress at the time of the adoption of the exemption was, on the one hand, to relieve transportation of the essential products of agriculture from some of the incidents of regulation but, on the other, to preserve the general purpose of the necessary regulation of transportation by motor vehicle."<sup>1</sup>

There is little doubt that this exemption has been of material help to farmers, as well as to consumers, by resulting in lower rates on farm products than would otherwise be in effect. It is believed, however, that the exemption has not been quite as beneficial as some of its proponents may have hoped. For one thing, many agricultural carriers have had to give up back hauls of farm supplies (which are not unmanufactured farm

<sup>1</sup> *Monroe Common Carrier Application*, 8 M. C. C. 183 (185).

products, livestock, or fish) in order to be exempt and to operate empty on the return movement. This means that all of the trucking expenses must be borne by the main haul. Since the cost of a round trip is approximately the same whether or not there is any pay load on the back haul, the expenses per unit of traffic on the principal movement would be approximately twice as high as if there were a return

movement. Of course, the rates on the main haul of farm products must reflect the high per unit costs. Extension of the exemption to cover vehicles hauling farm products from agricultural areas to market and farm supplies on the back haul would doubtless lead to lower rates on both types of traffic.

EZEKIEL LIMMER.

Processing and storage of farm products will be discussed next month.

## Servicing A Billion-Dollar Industry

THE market news service on fruits and vegetables, operated by the United States Department of Agriculture, functions somewhat like a commercial press association. More than 8,000 miles of leased telegraph lines link together the Department's market news offices in 22 large terminal markets the country over and the temporary offices operated at some time during the year in 45 major producing areas. Up-to-the-minute and summary market news reports—by mail, wire, press, and radio—cover more than 50 different fruits and vegetables. Combined, these reports give a daily, moving picture of conditions in the Nation's vast fruits and vegetables industry.

Farmers and shippers in producing sections rely upon the 22 city offices for information on prices, conditions, and supplies at terminal markets—information collected by Government reporters interviewing buyers and sellers early each morning. Reporters check and recheck the prices at which the various fruits and vegetables are sold, and, in many cases the prices on each variety. Circulating about the markets they report on the general "tone" of conditions—"market dull," "market steady," "market firm."

While reporters are out on the street, clerks telephone the various railroad receivers for a record of supplies re-

Market reporters in scores of farm and city produce markets the country over \* \* \* collecting and disseminating authentic information on prices, shipments, and market supplies \* \* \* by mail, wire, press, and radio \* \* \* a Government service to a billion-dollar industry in the production of fruits and vegetables.

Miles of leased telegraph lines link together the Government market news offices in receiving markets and producing areas \* \* \* each office sends out daily reports on local conditions and a summary of conditions at other markets and producing areas \* \* \* recently, a consumer radio market news service was added.

The accompanying article tells how producers, distributors, and consumers keep informed on the produce markets.—Ed.

ceived during the previous 24 hours. Clerks tabulate the reports coming over the leased wire from other city markets and from producing sections, and a report on carlot shipments and "passings" for the past 24 hours from Washington, D. C. The market news office is a busy place, speed is of the essence.

**S**PED is essential too in disseminating the information. Radio is used. More than 400 radio stations now regularly broadcast agricultural market

news reports. A number of stations supply remote control facilities direct to the market news office. Some stations broadcast 3 to 5 scheduled reports daily so that producers may be kept informed on changes and trends in the market. Newspapers and other publications print the reports. Thousands of mimeographed copies are mailed to individuals direct.

The reports issued by the temporary offices in producing sections are similar to the terminal market reports, though they include only those commodities being shipped locally. A report that covers strawberries, for example, includes a summary of the carloads moved from the local area during the preceding 24 hours up to midnight, a résumé of local market prices, as well as prices of strawberries at terminal markets to which local strawberries are moving that day.

As in the cities, the radio is used to broadcast shipping point market reports. At Presque Isle, Maine, for example, the market reporter in charge of the local office broadcasts a summary of the potato situation every evening. His program, a complete discussion of the latest developments in potato marketing, is a popular radio feature. Shipping point market reports are also mailed to an extensive list of individuals, and reprinted widely in local newspapers.

The work of the temporary field offices is handled by reporters who move from one producing area to another as the season progresses and as shipments in one area cease and the movement from a later area begins. A reporter may be in charge of an office that reports on early potatoes; when the "deal" is finished, he may move successively to areas producing tomatoes, peaches, cantaloups. Some of the shipping point offices are open only a month, others may be maintained for as long as 9 months.

THE concentration of commercial fruit and vegetable production in fairly well-defined areas and the heavy volume marketed within a

relatively short period are factors that make shipping point market news reporting feasible. Each of these heavy-producing areas has a principal shipping point, and the market reporter at that point keeps his finger on the pulse of the deal from start to finish.

The value of market news reports issued at shipping points lies in the fact that they reflect prices being paid for the producer's product at the producer's market, thus giving the producer an opportunity to plan his marketing operations. If he thinks that prices will go a little higher than the quotations in the report, and if the condition of his crop permits, he may delay harvest a while. If he thinks prices are about due for a decline, he may step up harvesting.

In many fruit and vegetable areas nowadays, a considerable volume of produce is sold to itinerant truckers. In transactions of this sort, the shipping point market news report is especially valuable to producers. When the Virginia potato grower, for example, is asked by a trucker to name his price, the grower may reply: "The market news report says potatoes are selling for \$1.50 over at Onley. I guess I ought to get at least \$1.40."

PRODUCERS as a rule are not directly interested in prices paid at terminal markets. Such quotations include transportation costs and various commission rates, and it is difficult for growers to interpret these prices in terms of their own crops. But local shippers are keenly interested in city prices; shippers' quotations to growers are generally based on the situation at the receiving centers. An accurate appraisal of the demand at various markets also plays a part in the efficient marketing of the products.

**Example:** If the daily strawberry report issued at Hammond, La., during the shipping season shows strawberry prices at Chicago are \$4.50 a crate with only 2 cars on track, the shipper may find it advantageous to send his berries to that market rather

than to Cleveland where the price may be only \$4.25 a crate with 7 cars on track. If his berries are already on the way to Cleveland, he may "divert" them to Chicago. Such use of the markets news reports prevents the accumulation of a surplus at Cleveland by diverting supplies to Chicago where they are needed more. And whether or not the producer is interested in terminal market prices, the increased marketing efficiency that grows out of the availability of this information means money to him.

THE Department has been putting increased emphasis on the "consumer broadcasts" presented in a number of cities. These programs, identified by the name "Federal Food Reporter," keep the homemaker informed

of products that are plentiful on the market and relatively cheap in price, of the first offerings of the season, and final offerings. It is also planned to include with the broadcasts a discussion of food values. Consumer market news is now being broadcast in Boston, New York, Philadelphia, Baltimore, Cleveland, Cincinnati, Atlanta, Chicago, Kansas City, Oklahoma City, Denver, and Los Angeles.

The market news service on fruits and vegetables is not perfect. Many problems of news collection and news dissemination remain to be solved. Nevertheless, each year sees progress made and an increase in the number of people—growers, distributors, and consumers—who use the service in their business and in the home.

B. C. BOREE,  
*Agricultural Marketing Service.*

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## Another Look at Land Values

A CONTINUED cautious response to improved income levels characterized the movement of farm real-estate values during the past year. An increase of 1 point in the index of values for the Nation as a whole brought average values to a level on March 1, 1941, that was 86 percent of the 1912-14 period. This marked the second consecutive year for which a 1-point increase over the preceding year was reported. Two major geographic divisions—the West North Central States and the West South Central States—showed no change in farm real-estate values during the past year. Increases in the other geographic divisions varied from 1 to approximately 3 percent, the largest increases occurring in the South Atlantic and East South Central groups of States. Average farm land values increased in 33 States, decreased in 6, and were unchanged in 9.

Values for the Nation as a whole are about 18 percent above the levels

Eighteen months ago, *The Agricultural Situation* explored the possibilities of a rise in farm land values. Caution was sounded against the sort of thing that happened after World War I, when land values were bid up to fantastic heights. In the collapse which followed that speculative spree, hundreds of thousands of persons were stripped of all their possessions.

\* \* \* Once again we look at the situation and marshal additional reasons why land values should not be permitted to rise unduly in these uncertain times. Farm income this year will probably be the highest in more than a decade, but the big question is how long this increase will be maintained in the years to come. Against this uncertainty the Government economists advise a cautious response in land values.—Ed.

reported in 1933 when the value index reached a low of 73. In contrast with

the limited value increases since the depression low, cash income from farm marketings has increased more than 78 percent; with government payments included, the increase in income was approximately 95 percent. During the past 5 years the average value per acre of farm real estate has fluctuated little, the reported index being 85 in each of 3 years, 84 in 1939, and 86 for the year just past.

Factors operating during the past year to support land-value increases included the strengthening of prices of certain farm products in response to increased demands created by the National Defense Program. To the extent that the increased demands are expected to be of a temporary nature the response of land values to increased prices and incomes is likely to be limited. The attitude of prospective buyers toward the increased price and income levels will thus be of considerable significance in judging land values.

THE movement of values during the years just prior to 1920 is still remembered by a considerable number of people, and many prospective buyers may expect values to repeat, at least in part, their World War movement. Although it is probable that a substantial number of farmers expect land values to again rise and then fall, this very expectation will tend to have a curbing influence on value increases. As long as farmers are aware of the decline phase of the movement, there is less likelihood that values will be bid up unduly. Only persons interested in speculation, or in purchase for sale at the peak, would be interested in the upward phase of the movement. Those interested in long-term investments or in purchase for operation would drop out of the market before values reached a level that they felt could not be maintained.

While many farms during the last war probably sold at prices that bore little or no relation to current earnings, the basic difficulty seems to have centered around the failure to ap-

preciate fully the abnormality of the prevailing income and price levels and the unlikelihood of their continuance. While it is probable that many farmers are looking forward to significantly increased returns during the next few years, considerable uncertainty exists with regard to the permanent continuation of this improved income level. The question then is "What land value response is economically justified by these increased incomes which are expected to be temporary?"

THE relation of temporary price and income increases to land values may be illustrated by an example: If the expected level of annual net earnings of a given farm were estimated at \$5 per acre, a value of \$100 per acre would be warranted if a 5-percent discount rate was considered appropriate. If a further assumption be made that there will be an increase of \$2.50 per acre in annual net land earnings during the next 3 years, the warranted increase in land values would be the discounted value of the added net incomes. The land then would be worth \$106.81 per acre, or an increase of less than 7 percent as the result of an increase in income of 50 percent for a 3-year period.

This relatively small increase in values may be contrasted with a value of \$150 per acre if the increase in net income were considered permanent rather than temporary. Under the assumption that the 50-percent increase in net land income should continue for 5 years, the warranted increase in land values would approximate 11 percent. The larger the increases in incomes and the longer the increases may be expected to prevail the more significant could be their effect on present farm real estate values. The certainty of occurrence of the increased incomes and the rate of discount are also of consequence in attempting to judge the justifiable response.

The following tabulation shows the warranted increase in land values un-

der various conditions assuming a 5 percent rate of discount.

Increase in net land income above expected long-term average	Warranted increase in land values with income increases continuing for periods indicated	
	3 years	5 years
Percent	Percent	Percent
25	4.4	5.4
50	6.8	10.8
75	10.2	16.2

So long as the long-term considerations are properly emphasized in the formulation of judgments concerning land values, there is little danger that temporary price changes will influence values unduly. The cautious value responses in recent years would appear to indicate that the basic considerations are still being adequately weighted in the formulation of current value judgments.

A. R. JOHNSON.

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## National Research Center

THE Research Center of the United States Department of Agriculture, at Beltsville, Md., is probably the world's largest and most comprehensive institution devoted to the scientific solution of farm problems. The Center covers more than 12,461 acres. It contains laboratories, greenhouses, experimental plots, and other facilities for every conceivable agricultural research activity, beginning with the techniques of production and ending with the processing and utilization of consumer goods.

The Center contains thousands of experimental farm and laboratory animals. The experimental dairy herd is mostly Holstein-Friesian, with some Jersey, some Guernsey, and some Red Danish cattle. Other experimental animals include beef and dual-purpose cattle, horses, sheep, goats, swine, and dogs. Experimental flocks include chickens, turkeys, and pigeons. Eighty-four barns and 500 other structures—small-animal houses, pens, and poultry houses—shelter the experimental animals and fowls.

There are 31 greenhouses for experimental plants and insects. There is an apiary for bees. The Center has an abattoir, a granary, mechanical shops, and a central sewage-disposal plant. There are experimental pastures, ranges, orchards, fields of cultivated crops, timber stands, and soil-

treatment plots. There are 28 laboratory buildings. The cost of research at the Center is less than 2 million dollars a year. A small part of this is offset by the sale of surplus products.

THE Center employs nearly a thousand people. The scientific staff includes agronomists and animal husbandmen, apiculturists and bacteriologists, biochemists and biologists, botanists and chemists, entomologists and geneticists, grain technicians and home economists, horticulturists and marketing specialists, parasitologists and pathologists, physicists and physiologists, pomologists and silviculturists, and so on through the agricultural sciences from soil conservation to zoology.

Plant breeders at Beltsville develop new varieties of fruits, vegetables, and nuts to meet the Nation's rapidly changing requirements. One important requirement is resistance to diseases that from time to time threaten to wipe out a whole industry in some part of the country. Others are for properties that make for better eating quality and for good keeping and good shipping. Still another is for adaptation to a specific purpose, such as canning or preserving. Among the more notable contributions by Beltsville scientists in this field are the Marglobe tomato, created just in time

to save the Florida shipping industry from virtual extinction through ravages of wilt and rust, and the Blakemore strawberry, the most extensively grown strawberry variety in the United States.

The animal genetics work at Beltsville is designed to uncover new principles of farm animal improvement by systems of mating and to test the soundness of old theories. Among the relatively new theories proved by results at Beltsville is that the sire is more important than the dam in building up a high producing dairy herd. Records of the production of cows in the Beltsville dairy herd, kept for 22 years, show that a bull whose daughters are consistently better milk producers than their mothers is relatively pure in his genetic make-up for the factors that insure high levels of milk production.

**B**EATSVILLE animal breeders create new styles in swine to meet modern demands for medium-size hogs that gain as economically as larger hogs and produce the medium-size cuts of meat favored by today's markets. They breed types designed to butcher well both for lean hams and loins and for a good proportion of bacon. Progress has been made in developing more profitable sheep, goats, horses, and beef and dual-purpose cattle. Among the new creations is a fur-bearing sheep, the result of crossing Karakuls imported from Asia with various American breeds.

Following the "three-P" program—production records, pedigrees, and progeny testing—poultry breeders at Beltsville have developed some promising new lines of poultry. The pullets of one new line lay exceptionally heavy eggs. Those of another new line lay eggs having a high percentage of thick white—nice for poaching. Still another new line is a small-type turkey, with plenty of breast meat.

Side by side with the breeding research go a vast number of studies designed to bring to light facts that will point the way to better methods

of raising and caring for all these new crops—both plant and animal—of keeping them free from disease, infections, and infestations, of getting them to market most effectively and efficiently, and of finding new uses for them.

**M**OST of the Department's basic research designed to provide background information for the official inspection of grains and rice is conducted at Beltsville. In specially equipped laboratories, samples of grain taken from commerce are put through mechanical, chemical, and milling and baking tests. The results of these tests are used to improve official standards to meet changing conditions, as well as to make possible improved methods of evaluation, which can be translated into terms of practical inspection service.

Tests necessary under the Federal Seed Act are conducted at Beltsville. Hundreds of samples of seed taken from interstate channels of trade are examined to ensure compliance with the law, which requires complete and truthful labeling of seed shipped in interstate commerce for seeding and prohibits false advertising.

**H**OME economists at Beltsville look for ways to use agricultural products that will most benefit consumers. Food utilization research often provides a link between other lines of the Department's research and the ultimate consumer. It proves the fitness, or unfitness, of new animal or plant types for the market. It affords farmers a guide in growing the kinds of food consumers want to buy. The subject of adequate diets for human beings receives special attention. At the request of Congress, textile specialists look for new ways to promote the use of the abundant cotton crop. Designs for cotton hose developed by these specialists have been accepted by manufacturers of socks and stockings.

KATHERINE A. SMITH,  
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# Economic Trends Affecting Agriculture

Year and month	Industrial production (1935-39=100) <sup>1</sup>	Income of industrial workers (1924-29=100) <sup>2</sup>	Cost of living (1924-29=100) <sup>3</sup>	Whole-sale prices of all commodities <sup>4</sup>	Prices paid by farmers for commodities used in			Farm wages	Taxes <sup>5</sup>
					Living	Production	Living and production		
1925	91	98	101	151	164	147	157	176	270
1926	96	102	102	146	162	146	155	179	271
1927	95	100	100	139	159	145	153	179	277
1928	99	100	99	141	160	148	155	179	279
1929	110	107	99	139	158	147	153	180	281
1930	91	88	96	126	148	140	145	167	277
1931	75	67	88	107	126	122	124	130	253
1932	58	46	79	95	108	107	109	96	219
1933	69	48	75	96	109	108	109	85	187
1934	75	61	77	109	122	125	123	95	178
1935	87	69	79	117	124	126	125	103	180
1936	103	80	80	118	122	126	124	111	182
1937	113	94	83	126	128	135	130	126	187
1938	88	73	81	115	122	124	122	125	186
1939	108	84	80	113	120	122	121	123	190
1940	122	95	81	115	121	124	123	126	
1940—May	115	88	81	114	—	—	123	—	
June	121	90	81	113	121	125	123	—	
July	121	93	81	113	—	—	122	129	
August	121	96	81	113	—	—	122	—	
September	125	99	81	114	121	123	122	—	
October	129	101	81	115	—	—	122	129	
November	132	104	81	116	—	—	122	—	
December	138	108	81	117	122	125	123	—	
1941—January	139	111	81	118	—	—	123	124	
February	141	111	81	118	—	—	123	—	
March	143	113	82	119	124	125	124	—	
April	139	112	82	121	—	—	124	138	
May <sup>7</sup>	—	—	—	124	—	—	125	—	

Index of prices received by farmers (August 1909-July 1914=100)

Year and month	Index of prices received by farmers (August 1909-July 1914=100)							Ratio of prices received to prices paid	
	Grains	Cotton and cotton-seed	Fruits	Truck crops	Meat animals	Dairy products	Chickens and eggs		
1925	157	177	172	153	140	153	163	156	99
1926	131	122	138	143	147	152	159	145	94
1927	128	128	144	121	140	155	144	139	91
1928	130	152	176	159	151	158	153	149	96
1929	120	144	141	149	156	157	162	146	95
1930	100	102	162	140	133	137	129	126	87
1931	63	63	98	117	92	108	100	87	70
1932	44	47	82	102	63	83	82	65	61
1933	62	64	74	105	60	82	75	70	64
1934	93	99	100	103	68	95	89	90	73
1935	103	101	91	125	118	108	117	108	86
1936	108	100	100	111	121	119	115	114	92
1937	126	95	122	123	132	124	111	121	93
1938	74	70	73	101	114	109	108	95	78
1939	72	73	77	105	110	104	94	93	77
1940	85	81	79	114	108	113	96	98	80
1940—May	92	83	88	117	108	106	84	98	80
June	83	81	104	112	102	104	81	95	77
July	78	80	89	98	110	105	88	95	78
August	76	77	79	107	110	109	90	96	79
September	77	76	73	114	114	111	104	97	80
October	80	78	79	99	112	116	112	99	81
November	83	79	71	98	112	121	120	99	81
December	81	79	75	93	111	128	122	101	82
1941—January	84	80	78	117	130	121	100	104	85
February	81	80	80	156	130	118	90	103	84
March	84	82	83	134	129	118	90	103	83
April	90	88	89	161	137	121	104	110	89
May <sup>7</sup>	93	98	89	146	138	124	107	112	90

<sup>1</sup> Federal Reserve Board, adjusted for seasonal variation.

<sup>2</sup> Adjusted for seasonal variation. Revised April 1941.

<sup>3</sup> Monthly indexes for months not reported by the Bureau of Labor Statistics are interpolated by use of the National Industrial Conference Board cost-of-living reports.

<sup>4</sup> Bureau of Labor Statistics index with 1926=100, divided by its 1910-14 average of 68.5.

<sup>5</sup> These indexes are based on retail prices paid by farmers for commodities used in living and production reported quarterly for March, June, September, and December. The indexes for other months are interpolations between the successive quarterly indexes.

<sup>6</sup> Index of farm real estate taxes per acre. Base period represents taxes levied in the calendar years 1909-13, payable mostly within the period Aug. 1, 1909-July 31, 1914.

<sup>7</sup> Preliminary.

**NOTE.**—The index numbers of industrial production and of industrial workers' income shown above are not comparable in several respects. The base periods are different. The production index includes only mining and manufacturing; the income index also includes transportation. The production index is based on volume only, whereas the income index is affected by wage rates as well as by time worked. There is usually a time lag between changes in volume of production and workers' income, since output can be increased or decreased to some extent without much change in the number of workers.